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## UTILITY PATENT APPLICATION

| Attorney Docket No.  First Inventor |               | TI-34845                              |  |  |  |  |  |  |  |
|-------------------------------------|---------------|---------------------------------------|--|--|--|--|--|--|--|
|                                     |               | Madan                                 |  |  |  |  |  |  |  |
| Title                               | BITLINE PRECE | HARGE TIMING SCHEME TO IMPROVE SIGNAL |  |  |  |  |  |  |  |

| INAMOMITTAL   |   | BITLINE PRECHARGE TIMING SCHEME TO IMPROVE SIGNAL  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|
| (Only for new nonprovisional applications under 37 CFR 1.53(b))   |   | MARGIN  Mail Label No. ET 952410093 US   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |  |
| APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application con   | ADDRESS TO:  Assistant Commissioner for Patents Display Patent Application Washington, DC 20231 |  |  |  |  |  |  |  |
| 1. <b>X</b> Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original, and a duplicate for fee processing)   | 7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)                      |  |  |  |  |  |  |  |
| 2 Applicant claims small entity status. See 37 CFR 1.27.  | Applicant claims small entity status.   |  |  |  |  |  |  |  |
| 3. X Specification [ Total Pages (preferred arrangement set forth below)  | s <b>20</b>   | if applicable, all necessary)  a. Computer Readable Form (CRF)   |  |  |  |  |  |  |
| - Descriptive title of the Invention  |   | b. Specification Sequence Listing on:  |  |  |  |  |  |  |
| <ul> <li>Background of the Invention</li> <li>Brief Summary of the Invention</li> <li>Brief Description of the Drawings (if filed)</li> <li>Detailed Description</li> <li>Claim(s)</li> </ul> | i. CD-ROM or CD-R (2 copies); or  i i . paper  c. Statements verifying identity of above copies |  |  |  |  |  |  |  |
| - Abstract of the Disclosure  |   | ACCOMPANYING APPLICATION PARTS   |  |  |  |  |  |  |
|   |   | 9. X Assignment Papers (cover sheet & documents(s))  |  |  |  |  |  |  |
| 4. X Drawing(s) (35 U.S.C. 113) [ Total Sheets  | 4   | 37 CFR 3.73(b) Statement (when there is an assignee) Power of Attorney   |  |  |  |  |  |  |
| 5. Oath or Declaration [ Total Pages  | 1   | In the second se |  |  |  |  |  |  |
| a. Newly Executed (original or copy)  |   | 12. X Information Disclosure Statement (IDS)/PTO-1449 X Copies of IDS Citations  |  |  |  |  |  |  |
| b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 complete   | ed)   | 13. Preliminary Amendment  |  |  |  |  |  |  |
| i. <u>DELETION OF INVENTOR(S)</u>   |   | 14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)   |  |  |  |  |  |  |
| Signed statement attached deleting inv named in the prior application, see 37 (1.63(d)(2) and 1.33(b).  |   | 15. Certified Copy of Priority Document(s) (if foreign priority is claimed)  |  |  |  |  |  |  |
|   |   | 16. Request and Certification under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.  |  |  |  |  |  |  |
| 6. Application Data Sheet. See 37 CFR 1.76  | 17. Other:  |  |  |  |  |  |  |  |
| 18. If a CONTINUING APPLICATION, check appropriate bo or in an Application Data Sheet under 37 CFR 1.76:  | x, and supp   | ply the requisite information below and in a preliminary amendment,  |  |  |  |  |  |  |
| Continuation Divisional Continuation Prior application information: Examiner  | in-part (CIP)   | of prior application No:   |  |  |  |  |  |  |
| For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the  | cation and is h   | Group / Art Unit:  ation, from which an oath or declaration is supplied under Box 5b, is considered a hereby incorporated by reference. The incorporation can only be relied upon when a   |  |  |  |  |  |  |
|   |   | DENCE ADDRESS  |  |  |  |  |  |  |
| Customer Number or Bar Code Label (Insert Cust  | <b>234</b><br>tomer No. or Att  | 194 ttach bar code label here)  or  Correspondence address below   |  |  |  |  |  |  |
| NAME Texas Instruments Incorporated   |   |  |  |  |  |  |  |  |
| ADDRESS   |   |  |  |  |  |  |  |  |
| COUNTRY STATE COUNTRY TELEPHONE   | 072 047 4   | ZIP CODE   |  |  |  |  |  |  |
|   | 972-917-5   |  |  |  |  |  |  |  |
| Name (Print/Type) Robert N. Rountree  | 77  | Registration No. (Attorney/Agent) 39,347   |  |  |  |  |  |  |
| Signature KALLAN I  | Koms  | ne Date 1/18/83  |  |  |  |  |  |  |

## **FEE TRANSMITTAL** for FY 2003

Patent fees are subject to annual revision.

Express Mailing Label No.: EU 664690931 US

Compl te If Known TBD **Application Number** November 18, 2003 Filing Date Madan First Named Inventor TBD **Examiner Name** TBD Group Art Unit

| TOTAL AMOUNT OF PAYMENT \$ 1442  |   |         |  |          | 2                  |                                   | Attorney Docket No. TI-34 |  |                                  |  |                                       | 34845        |             |   |
|--|---|---------|--|----------|--------------------|-----------------------------------|---------------------------|--|----------------------------------|--|---------------------------------------|--------------|-------------|---|
| METHOD OF PAYMENT  |   |         |  |          |                    |                                   | FEE CALCULATION (conf     |  |                                  |  |                                       | nued)        |             |   |
| The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to: |   |         |  | 3        | 3. ADDITIONAL FEES |                                   |                           |  |                                  |  |                                       |              |             |   |
|  |   |         |  |          |                    | arge<br>Intity                    |                           | Small<br>Entity                        |                                  |  |                                       |              |             |   |
|  | Deposit<br>Account<br>Number                |         | 20-0668  |          |                    | ee<br>ode                         | Fee<br>(\$)               | Fee<br>Code                            | Fee<br>(\$)                      | Fee  | Description                           |              | Fee Paid    |   |
|  | Deposit                                     |         |  |          | 1                  | 051                               | 130                       | 205                                    | 65                               | Surcharge - la                             | ite filing fee of oa                  | ath [        |             |   |
|  | Account Name Texas Instruments Incorporated |         |  | 1        | 052                | 50                                | 227                       | 25                                     | Surcharge - la<br>or cover sheet | ite provisional fili<br>t                  |                                       |              |             |   |
| ·  |   |         |  | 1        | 053                | 130                               | 139                       | 130                                    | Non-English s                    | pecification                               |                                       |              | ı           |   |
| Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17                                  |   |         |  |          | 1                  | 812                               | 2,520                     | 147                                    | 2,520                            | For filing a rec<br>reexamination          | quest for ex parte                    | e            |             |   |
| Applicant claims small entity status.  See 37 CFR 1.27   |   |         |  |          | 1                  | 1804                              | 920*                      | 112                                    | 920*                             | Requesting po<br>Examiner acti             | ublication of SIR on                  | prior to     |             |   |
| 2. Payment Enclosed:   |   |         |  |          | <b></b>            | 1805                              | 1,840*                    | 113                                    | 1,840*                           | Requesting po<br>Examiner acti             | ublication of SIR                     |              |             |   |
|  | Check Credit Money Other                    |         |  |          |                    | 1251                              | 110                       | 215                                    | 55                               | Extension for                              | reply within first                    | month        |             |   |
| card Order   |   |         |  |          | 1                  | 1252                              | 400                       | 216                                    | 195                              | Extension for month                        | reply within seco                     |              |             |   |
|  | F   | EE      | CALCULAT   | ION      | <b>-</b> □ ¹       | 1253                              | 920                       | 217                                    | 445                              |  | reply within third                    |              |             |   |
| 1.   | BASI  | C FI    | LING FEE   |          | ┦ ¹                | 1254                              | 1,440                     | 218                                    | 695                              | Extension for month                        | reply within four                     |              |             |   |
|  | ntity Smal                                  | I Entit | y<br>Fee Description                                 |          | 1                  | 1255                              | 1,960                     | 228                                    | 945                              |  | reply within fifth                    | month        |             |   |
| Code (\$   |   | (\$)    | ree Description                                      | Fee Paid | 1                  | 1401                              | 320                       | 219                                    | 155                              | Notice of App                              | eal                                   |              |             |   |
| 1001 7   | 40 201                                      | 355     | Utility filing fee                                   | \$740    | 1                  | 1402                              | 320                       | 220                                    | 155                              | Filing a brief i                           | n support of an a                     | appeal       |             |   |
| 1002 3   | 330 206                                     | 160     | Design filing fee                                    |          | ]   1              | 1403                              | 280                       | 221                                    | 135                              | Request for oral hearing                   |                                       |              |             |   |
| ł  | 510 207                                     | 245     | Plant filing fee                                     |          |                    | 1451                              | 1,510                     | 138                                    | 1,510                            | proceeding                                 | titute a public us                    |              |             |   |
|  | 740 208                                     | 355     | Reissue filing fee                                   |          | 1 <b>1</b>         | 1452                              | 110                       | 240                                    | 55                               |  | rive - unavoidabl                     |              |             |   |
| 1005 1   | 160 214                                     | 75      | Provisional filing fe                                |          | 1 1                | 1453                              | 1,280                     | 241                                    | 620                              |  | vive - unintention                    | 121          | <b></b>     | İ |
|  |   |         | SUBTOTAL (   | 1) \$740 | Щ                  | 1501                              | 1,280                     | 242                                    | 620                              | -  | ee (or reissue)                       |              |             |   |
| 2. EXTRA CLAIM FEES Fee from   |   |         |  | 1502     | 460<br>620         | 243<br>244                        | 220<br>300                | Design issue<br>Plant issue fe         |                                  |  |                                       |              |             |   |
|  | Extr  | a Claim |  | Fee Paid | .                  | 1503                              |                           |  |                                  |  |                                       |              |             | l |
| Total Cla  | ims   | 15      | -20**= 25 x  | 18 450   | 1 I                | 1460<br>1807                      | 130<br>50                 | 122<br>123                             | 130<br>130                       |  | ne Commissione<br>ed to Prov'l Apps ( |              |             |   |
| Claims   | Independent Claims 6 -3** = 3 x 84 = 252    |         | 1 1  | 1806     | 180                | 126                               | 180                       | Fee under 37 (                         |                                  |  |                                       |              |             |   |
| Multiple Dependent   |   |         | )  | 8021     | 40                 | 581                               | 40                        | Stmt                                   | ich patent assigr                |  |                                       |              |             |   |
| Large Entity Smal Entity   |   |         | 1  |          |                    |                                   |                           | per property (times no. of properties) |                                  |  |                                       |              |             |   |
|  | ee Fee                                      | Fee     | Fee Description                                      |          |                    | 1809                              | 740                       | 246                                    | 355                              |  | ission after final<br>CFR §1.129(a))  |              |             |   |
| 1202<br>1201   | 18 203<br>84 202                            | 9       | Claims in excess of                                  |          |                    | 1810                              | 740                       | 249                                    | 355                              | For each add                               | litional invention<br>7 CFR §1.129(b) | to be        |             |   |
|  | 84 202<br>280 204                           |         |  |          |                    | 1801                              | 740                       | 279                                    | 355                              | Request for Continued Examination          |                                       |              |             |   |
| 1204   | 84 209                                      | 40      | **Reissue independent claims<br>over original patent |          |                    | 1802                              | 900                       | 169                                    | 900                              | (RCE) Request for expedited examination of |                                       |              |             |   |
| 1205 18 210 9 **Reissue claims in excess of 20 and over original patent                        |   |         |  | ither f  | ee (specify        | ۸                                 |                           | a design application                   |                                  |  |                                       |              |             |   |
| and over ongunal patent SUBTOTAL (2) \$702   |   |         |  | 1 I      | ouel It            | es (aheni)                        | ,                         |  |                                  |  | _                                     |              | ,           |   |
|  |   |         |  |          |                    | *Reduced by Basic Filing Fee Paid |                           |  |                                  | SIII                                       | BTOTAL (                              | 3) [6        | \           | 1 |
| **or number previously paid, if greater; For Reissue, see above                                |   |         |  |          |                    |                                   |                           |  |                                  |  |                                       | 1            |             |   |
| SUBMITTED BY   |   |         |  |          |                    |                                   |                           | Registratio                            | on No. I                         | 20 247                                     | Comple<br>Telephone                   | ete (if appl |             |   |
| Name   | (Print/Type)                                |         | Robert N. Roun                                       |          |                    | ,                                 |                           | (Attorney/                             | Agent                            | 39,347                                     |                                       | (/ 18        | 9) 783-0990 |   |
| Signature Kylest N. Rount  |   |         |  |          | nto                | u                                 | _                         |  |                                  |  | Date                                  | ////8        | 3/03        |   |